

## Claims

What is claimed is:

1. A system for building software use cases and related state diagrams for business requirements, the system comprising:

a business activity model identifying a plurality of business activities, the business activity model operable to maintain a hierarchical relationship between at least some of the plurality of business activities;

a modeling tool operable to build software uses case based on a business requirement, the modeling tool further operable to maintain relationships between at least some of the plurality of software use cases, at least some of the plurality of business activities, and a business requirement;

an integration component in communication with the business activity model and the modeling tool, the integration component operable to map at least some of the plurality of use cases in the modeling tool according to the hierarchical relationship of the business activities maintained by the business activity model;

a graphical user interface operable to illustrate the relationship of at least some of the software uses cases with the business requirement; and

a state diagram component operable using the modeling tool with the mapped use cases to prepare state activity diagrams for at least a portion of the business requirement.

2. The system of Claim 1 wherein the business activity model aligns the plurality of business activities to a plurality of business domains and identifies each of the plurality of business activities to be a high level, a middle level, or a low level business activity.
3. The system of Claim 1 wherein the modeling tool is defined to be the IBM Rational Rose tool.
4. The system of Claim 1 wherein the integration component is further operable to provide a list of the plurality of business activities selectable for building a state activity diagram.
5. The system of Claim 1 wherein the business activity model is based on the Tele-Management Forum enhanced Telecom Operations Map (eTOM).
6. The system of Claim 5 wherein the business activity model is stored in a spreadsheet file.
7. The system of Claim 6 wherein the hierarchical relationship of the plurality of business activities is further defined as an eTOM level 0, an eTOM level 1, an eTOM level 2, and an eTOM level 3.

8. The system of Claim 7 wherein the software use cases are further defined as one of a scope use case, a process use case, and a system integration use case, and wherein the integration component aligns the scope use cases to the eTOM level 0, the process use cases to the eTOM level 1 and eTOM level 2, and the system integration use cases to the eTOM level 2 and eTOM level 3 in the modeling tool.

9. The system of Claim 8 wherein the process use cases represent functionality of a business process based on a functional requirement of the business requirement.

10. The system of Claim 8 wherein the scope use cases represent a project scope based on the business requirement.

11. A method for building a state activity diagram, comprising:
- providing a business activity model enumerating domains of a business and a plurality of business activities, the business activity model maintaining a hierarchical association of the plurality of business activities;
  - segmenting a plurality of use cases according to the hierarchical relation of the plurality of use cases with the plurality of business activities, the plurality of use cases based on a business requirement;
  - selecting one of the plurality of use cases; and
  - displaying the use case in a state activity diagram, the state activity diagram providing a first portion of the use case associated with a first domain of the business and a second portion of the use case associated with a second domain of the business.
12. The method of Claim 11 wherein the business activity model is based on the Tele-Management Forum enhanced Telecom Operations Map (eTOM).
13. The method of Claim 11 wherein the use cases are mapped according to one of a plurality of levels of the eTOM.
14. The method of Claim 13 wherein the use cases include at least one of a business scope use case based on the business requirement, a business process use case based on functional requirements of the business requirement, and a system integration use case based on system requirements of the business requirement.

15. The method of Claim 14 further comprising:
- providing a system diagram model related to the system integration use case;
  - providing a functional diagram model related to the business process use case;
  - using at least a portion of the system diagram model to model state activity diagrams for the system integration use cases; and
  - using at least a portion of the functional diagram model to model the state activity diagrams for the business process use cases.

16. A method for building a software use case, comprising:

- providing a business activity model enumerating a plurality of business activities;
- selecting a first business activity from the plurality of business activities;
- defining a plurality of software use cases based on a business requirement;
- providing an integration component operable to selectively organize, in a modeling tool, the plurality of software use cases according to the relationship of each of the plurality of software use cases with the plurality of business activities;
- and
- using the modeling tool to build software uses cases according to the business activity model.

17. The method of Claim 16 wherein the business activity model aligns the plurality of business activities according to domains of a business, and wherein the plurality of business activities are selected from the group consisting of high level business activities, middle level business activities, and low level business activities.

18. The method of Claim 17 wherein each of the plurality of software use cases is a high level software use case, a middle level software use case, or a low level software use case, and wherein a high level software use case comprises one or more middle level software use cases, and wherein a middle level software use case comprises one or more low level software use cases.

19. The method of Claim 16 wherein the business activity model is based on the Tele-Management Forum enhanced Telecom Operations Map (eTOM).

20. The method of Claim 19 wherein the integration component is operable to organize each of the plurality of use cases according to the one of a plurality of levels of eTOM.